

## **BLOODBORNE PATHOGENS TRAINING FOR EMPLOYEES**

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation. Featured are:

**INTRODUCTION:** A brief description of the program and the subject that it addresses.

**PROGRAM OUTLINE:** Summarizes the program content. If the program outline is discussed before the video is presented, the entire program will be more meaningful and successful.

**PREPARING FOR AND CONDUCTING THE PRESENTATION:** These sections will help you set up the training environment, help you relate the program to site-specific incidents, and provide program objectives for focusing your presentation.

**REVIEW QUESTIONS AND ANSWERS:** Questions may be copied and given to participants to document how well they understood the information that was presented. Answers to the review questions are provided separately.

### **INTRODUCTION**

Many workers make the mistake of thinking that only healthcare providers are at risk from exposure to bloodborne pathogens, but almost all employees in the workforce can be exposed, often when they least expect it. To protect themselves from these microorganisms, employees must receive training and learn specific precautions, which is the purpose of this new program. Viewers will learn the hazards associated with bloodborne pathogens and how to protect themselves from exposure to these hazards by following universal precautions in each and every potential exposure situation.

Topics include diseases caused by bloodborne pathogens, the exposure control plan, routes of entry, universal precautions, handling & disposal of contaminated items, responding to exposure situations, decontaminating work areas and equipment.

### ***PROGRAM OUTLINE***

#### **DISEASES CAUSED BY BLOODBORNE PATHOGENS**

- Bloodborne pathogens can cause serious diseases, some of which are fatal and have no known cure. These diseases can be contracted by exposure to body fluids, including blood, semen, vaginal secretions, spinal fluid, amniotic fluid and other body fluids or tissue.
- Many workers make the mistake of thinking that only doctors, nurses, paramedics or other healthcare providers are at risk from exposure to bloodborne pathogens, but that's just not the case. There are a variety of ways each of us could be exposed to bloodborne pathogens, often when we least expect it.
- Some of the diseases caused by bloodborne pathogens include the various types of hepatitis such as type B, C and D. Also, HIV, the virus that causes AIDS can be transmitted by contact with bloodborne pathogens. Both hepatitis and HIV can be fatal.
- HIV attacks the body's immune system, leaving it vulnerable to other infections. The prolonged deterioration of the immune system can lead to Acquired Immunodeficiency Syndrome (AIDS). There is no known cure for HIV or AIDS.

#### **TYPES OF HEPATITIS**

- Hepatitis is a disease that attacks the liver and can be fatal. There are various types of hepatitis; each different strain carries a unique letter designation.
- The strains most likely transmitted by bloodborne pathogens include type B, C and D.

- Hepatitis C is the most common liver disease in the world; until recently, there was no cure for hepatitis C. Currently, hepatitis is being treated successfully with a drug called Interferon; however, the treatment may take up to 48 weeks.
- Hepatitis B also attacks the liver and is transmitted by contact with bloodborne pathogens. There is no known cure for hepatitis; however, there is a vaccine available to prevent hepatitis B.
- Hepatitis D only occurs in those people previously exposed to hepatitis B; contracting hepatitis D increases the severity of the hepatitis B infection. This double infection of hepatitis B and D is sometimes called a “super infection.”
- The symptoms of hepatitis include fatigue, stomach pain, jaundice, darkening of the urine and loss of appetite; however, victims of Hepatitis C often show no symptoms until later stages of the disease.

### **THE EXPOSURE CONTROL PLAN**

- Due to the risks associated with Bloodborne pathogens, the Occupational Safety and Health Administration, OSHA, developed standard 1910.1030, titled Bloodborne Pathogens.
- As part of this regulation, your company maintains an Exposure Control Plan that outlines employee training and procedures used to control exposure to bloodborne pathogens.
- The Exposure Control Plan includes descriptions of engineering and work practice controls, employee training, medical and vaccination information and a listing of signs and labels used to identify biological hazards.
- Also contained in the Exposure Control Plan is a list of job functions with an increased risk of exposure to bloodborne pathogens.
- The Exposure Control Plan is reviewed annually to reflect changes in technology that may eliminate or reduce the risk of exposure to bloodborne pathogens and is available for employee review.

### **ROUTES OF ENTRY**

- To protect ourselves from exposure to bloodborne pathogens we need to understand their various routes of entry. Routes of entry are the means by which bloodborne pathogens may enter our bodies.
- Ingestion can occur when infected material is eaten or swallowed. To prevent this, always wash hands thoroughly, immediately after working with potentially infectious materials.
- Also, never eat, drink or apply cosmetics in areas where body fluids are handled or stored.
- Inhalation can occur when small particles of blood or other body fluids become airborne in the form of a mist or dust. Once airborne, they can be inhaled into the lungs.
- When working in areas where this may be a possibility, wear the appropriate respiratory protection.
- Besides sexual contact, the most likely route of entry for contaminated bodily fluids to enter our body is through absorption. Absorption occurs when infectious material is absorbed into the body through contact with open sores or cuts in the skin or contact with mucus membranes.
- Besides avoiding contact altogether, the proper use of protective equipment, sometimes called barrier devices, can prevent the contact that leads to absorption.
- In addition to ingestion, inhalation and absorption, bloodborne pathogens may also enter our bodies if we are stuck by a contaminated needle or cut by a contaminated sharp object. The proper handling and storage of contaminated sharp objects is a key part of the Exposure Control Plan.

- Understanding these various ways in which bloodborne pathogens may enter our bodies is the first step towards preventing exposure.

### **OCCUPATIONAL EXPOSURE**

- Employees who perform tasks where they may reasonably be expected to contact or handle blood or other body fluids are considered to have "occupational exposure" to bloodborne pathogens.
- The company has determined which job tasks present an occupational exposure to bloodborne pathogens and maintains a list of these jobs in the company's Exposure Control Plan.
- Some examples of jobs with occupational exposure include custodial staff who may be exposed to broken glass, soiled bandages, or other contaminated items; company authorized first responders who offer first aid to injured workers; occupational health nurses or other health care providers who are exposed to bodily fluids or used needles; laundry personnel who may contact contaminated uniforms, linens, or other materials; or, any other worker who may reasonably be expected to handle or contact blood or body fluids.
- Workers who have been designated as having occupational exposure to bloodborne pathogens will receive specific instructions and training to avoid contact with bloodborne pathogens.
- This training will include the proper use of any protective equipment or barrier devices used in their specific job duties, specific procedures to follow to reduce exposure while performing their job tasks and the proper methods to handle and dispose of contaminated items.
- In addition, workers determined to have occupational exposure to bloodborne pathogens are eligible to receive the hepatitis B vaccine at no cost to the employee.

### **UNIVERSAL PRECAUTIONS**

- It is important to understand that you can't easily tell if blood or other body fluids are contaminated with bloodborne pathogens. The only way to protect yourself from exposure is to treat all blood, body fluids, and any potentially contaminated objects as if they are infected.
- This critical safe work practice is referred to as "universal precautions." All employees must understand the concept of universal precautions because there are situations where employees, who are not normally at risk from bloodborne pathogens, may come in contact with blood or other bodily fluids.
- For example, you may find your self in close proximity to a bleeding coworker or discover blood or unidentified fluids in your work area. You may also come across used bandages, syringes or other potentially contaminated items.
- Because all employees may encounter these types of situations, it is important that each of us be familiar with the proper actions that must be taken to prevent exposure.

### **PPE AND BARRIER DEVICES**

- One method to avoid exposure to bloodborne pathogens is to maintain a barrier between you and any contaminated items or body fluids.
- Maintaining a barrier prevents potentially contaminated materials from contacting exposed skin or mucus membranes. The various types of protective equipment available for this purpose are commonly referred to as barrier devices.
- Gloves made of impervious material will protect hands from exposure. Latex gloves are a common choice because they provide comfort and dexterity, although other materials are also available.

- Before using this type of glove, any cuts or wounds on your hands should be properly bandaged.
- Wearing this type of glove is adequate for most simple exposure situations, such as treating a minor cut or handling small contaminated materials that will not cut or puncture the glove.
- Some glove manufacturers recommend double-gloving when using latex gloves for added protection against a glove tear or puncture.
- Situations which involve a greater risk of exposure will require more protection. In situations where fluids may splash into the facial area, a face shield and safety goggles should be worn.
- When handling items that may tear or puncture latex gloves, heavier rubber gloves should be used.
- All gloves and other barrier devices must be inspected for cracks, holes or tears before use.
- Contaminated disposable gloves should not be reused and must be disposed of in a proper biohazard container according to your organization's policies.
- There are many types of barrier devices and those employees with occupational exposure will be instructed on how to use the barrier devices applicable to their job function.

### **HANDLING AND DISPOSAL OF SHARPS AND OTHER ITEMS**

- Following universal precautions also means avoiding direct contact altogether when possible. This is especially true when it comes to sharp objects which may be contaminated with bloodborne pathogens.
- Never handle broken glass, needles, or other sharp objects with your hands.
- Use tongs, a broom and dustpan or similar items to avoid the possibility of being cut or punctured by contaminated materials.
- When disposing of contaminated sharp objects such as glass or needles, they must be placed in an approved biohazard sharps container. Failing to properly dispose of sharps puts others at risk of exposure.
- Sharps containers should be closeable as well as leak and spill proof.
- Place all other types of potentially infectious material in approved biohazard containers. This includes disposable gloves, dressings, bandages or any other disposable items that are potentially contaminated.
- Biohazard containers are usually labeled with the biohazard symbol which may range in color from orange-red to solid red in color. Be aware that red bags or red containers may be substituted for labels.
- Following universal precautions by maintaining a protective barrier between you and potentially contaminated items, avoiding direct contact with sharps and properly disposing of contaminated waste are all things we must do to control the hazards associated with bloodborne pathogens.

### **RESPONDING TO EXPOSURE SITUATIONS**

- For employees without occupational exposure, encountering an injured coworker may be the most likely scenario for exposure to bloodborne pathogens.
- When a coworker is injured, the best course of action is to activate the company's emergency system plan for reporting injuries.
- This enables trained first aid responders to arrive quickly and provide assistance. First responders are trained to provide medical treatment while maintaining universal precautions for bloodborne pathogens.

- If you encounter a situation that is life threatening and you decide not to wait for emergency responders, be sure to follow universal precautions while assisting the victim. You must understand that acting as a good Samaritan places you at risk of exposure.
- If you think you may be confronted with this type of situation, prepare a first aid kit that includes latex gloves, eye and face protection and other barrier devices in addition to basic first aid supplies. Keep your first aid kit nearby so it will be available when you need it most.

### **DECONTAMINATING WORK AREAS AND EQUIPMENT**

- When work areas or equipment have been contaminated by blood or other body fluids, they must be thoroughly cleaned and decontaminated before being put back into service.
- It is important to note that cleaning a work area with soap and water is not enough. It must be decontaminated with a mixture that will kill any infectious materials that may be present; a 10 percent solution of bleach and water or an EPA-approved disinfectant is recommended for this purpose.
- Protective equipment such as face masks, goggles and other reusable devices must be cleaned and decontaminated thoroughly after use.
- Never attempt to reuse disposable equipment such as latex gloves or disposable clothing. These items must be disposed of in a biohazard container.

### **WHAT TO DO AFTER AN EXPOSURE OCCURS**

- In the event you come in contact with blood or other body fluids following the proper procedures may reduce the chances of contracting a disease.
- If the contact occurs on the skin, immediately wash the affected area with warm water and soap. An anti-bacterial soap is recommended.
- If the material splashes into your eyes rinse them thoroughly with water for 15 minutes.
- Report all exposures right away so any necessary medical testing, treatment and recordkeeping can take place.
- With employee consent, blood tests may be performed to determine if infection has occurred. In addition, the source material may be tested for infection.
- It is important to note that the Hepatitis B Vaccine can still be effective after an exposure.
- If the potential exposure is due to a sharp object such as a needle-stick, it will be recorded into the company's sharp's injury log.
- OSHA requires a sharp's injury log be maintained in order to gather data for research on preventing needle-stick injuries.

## **PREPARE FOR THE SAFETY MEETING**

Review each section of this Leader's Guide as well as the videotape. Here are a few suggestions for using the program:

Make everyone aware of the importance the company places on health and safety and how each person must be an active member of the safety team.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline.

Copy the review questions included in this Leader's Guide and ask each participant to complete them.

Copy the attendance record as needed and have each participant sign the form. Maintain the attendance record and each participant's test paper as written documentation of the training performed.

### **Here are some suggestions for preparing your Videotape equipment and the room or area you use:**

Check the room or area for quietness, adequate ventilation and temperature, lighting and unobstructed access.

Check the seating arrangement and the audiovisual equipment to ensure that all participants will be able to see and hear the videotape program.

## **CONDUCTING THE PRESENTATION**

Begin the meeting by welcoming the participants. Introduce yourself and give each person the opportunity to become acquainted if there are new people joining the training session.

Explain that the primary purpose of the program is to discuss the hazards associated with bloodborne pathogens and to show employees how to protect themselves from exposure to these hazards.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline. Lead discussions about job tasks and situations at your facility where employees could be exposed to bloodborne pathogens and how they can protect themselves. Use the review questions to check how well the program participants understood the information.

After watching the videotape program, the viewer will be able to identify the following:

- What an Exposure Control Plan is and how it works;
- How bloodborne pathogens enter the body;
- How universal precautions, PPE and barrier devices work to protect employees from exposure;
- How to handle and dispose of sharps and other potentially contaminated items;
- How to respond to exposure situations.

**BLOODBORNE PATHOGENS TRAINING FOR EMPLOYEES**  
**REVIEW QUIZ**

Name \_\_\_\_\_ Date \_\_\_\_\_

*The following questions are provided to check how well you understand the information presented during this program.*

1. What is the most common liver disease in the world?
  - a. hepatitis B
  - b. hepatitis C
  - c. hepatitis D
  
2. Only management and supervisors are allowed access to the company's Exposure Control Plan.
  - a. true
  - b. false
  
3. Besides sexual contact, the most likely route of entry for bloodborne pathogens to enter the body is \_\_\_\_\_.
  - a. ingestion
  - b. inhalation
  - c. absorption
  
4. Employees determined to have occupational exposure to bloodborne pathogens are eligible to receive the hepatitis B vaccine at no cost to the employee.
  - a. true
  - b. false
  
5. You should wear heavy rubber gloves when picking up broken glass or needles.
  - a. true
  - b. false
  
6. Biohazard containers or bags are usually \_\_\_\_\_ in color.
  - a. yellow to yellow-orange
  - b. green to blue-green
  - c. red to orange-red
  
7. Soap and water is effective in decontaminating a work area that has been contaminated with blood or other body fluids.
  - a. true
  - b. false
  
8. The hepatitis B vaccine can still be effective after an exposure.
  - a. true
  - b. false

***ANSWERS TO THE REVIEW QUESTIONS***

1. b

2. b

3. c

4. a

5. b

6. c

7. b

8. a